AMENDMENTS TO THE CLAIMS

1. (Previously presented) A method of reinforcing an embedded cylinder pipe by applying a composite structural reinforcement within the pipe through in situ stratification of at least one band of reinforcement fibers and a resin or a resin including matrix comprising the steps of

- applying said band onto a contact area on an internal face of said pipe by means of a contacting member;

- moving said contacting member along an helical path so that said contact area follows said path;

- moving a main pressing member behind said contacting member along said path, to apply pressure to said band in a main pressure area separated from said contact area.

2. (Previously presented) The method of claim 1, wherein the band is composed principally of carbon fibers.

3. (Previously presented) The method according to claim 1 wherein the band is a fabric.

4. (Previously presented) The method according to claim 1 wherein the band is preimpregnated with at least a resin or resin including matrix.

5. (Previously presented) The method according to claim 1 comprising the step of moving a coating member along said helical path and coating the internal face of said pipe with a resin or resin including matrix in a coating area forward said contact area.

6. (Previously presented) The method according to claim 1 comprising the step of moving a coating member along said helical path and coating the previously applied band on said internal face of said pipe with a resin or resin including matrix in a coating area behind said contact area and applying pressure through a secondary pressing member to said band in a secondary pressure area situated behind said main pressure area.

7. (Previously presented) The method according to claim 5 where the resin or the resin including matrix is obtained by mixing at least an unpolymerized resin and a hardening agent just before said coating step.

8. (Previously presented) The method according to claim 1 where:

- said band is fed to contact area of internal face of said pipe at a first running speed, V_1;

- said band is pressed against the internal face of said pipe in the main pressure area at a second running speed, V_2;

where said second running speed, V_2, is less than first running speed V_1, and at least 90 % of V_1, in particular at least 95%.

9. (Original) The method according to claim 8 where V_2 is 98% to 99% of V_1.

10. (Previously presented) The method according to claim 1 where the forward moving speed along the axis of the pipe, V_F, of the stratification process is driven by said second running speed, V_2.

11. (Original) The method according to claim 10 where said forward moving speed, V_F, is about,

$$V_F = V_2 * W/ (2 \Pi * R * N)$$

where W is the width of the band;

R is the radius of the internal side of said pipe;

N is the number of band layers of the composite structural reinforcement.

12. (Previously presented) The method according to claim 1 where contacting member and/or main pressing member are radially adjustable (a) so as to be kept in contact with the internal face of said pipe.

13. (Previously presented) The method according to claim 1 where contacting member includes a roller, driven by a wheel contacting the internal face of said pipe before applying the composite structural reinforcement, and where the peripheral speed (V_1) of said roller is increased compared to the peripheral speed (V_2) of said wheel.

14. (Previously presented) The method according to claim 1 where the band is unwinded from a roll prior to contact the internal face of said pipe.

15. (Previously presented) The method according to claim 14 where the tension of the unwinded band is regulated so that the band is stress free when applied onto contact area.

16. (Previously presented) The method according to claim 1 where the contact pressure in contact area and/or the pressure in main pressure area are regulated and remain roughly constant along the helical path.

17. (Currently Amended) A machine for reinforcing an internal side of an embedded cylinder pipe (1) with a composite structural reinforcement, said composite structural reinforcement comprising at least a band of reinforcement fiber and a resin or resin including matrix, said machine comprising:

- a contacting member capable of applying the band [[to]] onto a contact area on the internal face of said pipe;

- a pressing member capable of applying pressure to said band in a main pressure area separated from the contact area against the internal face of said pipe;

- a moving member capable of moving said contacting member and pressing member along an helical path;

where said contacting member and said pressing member are angularly shifted one from the other.

18. (Currently Amended) The machine of claim 17 comprising further a band providing member~~, comprising for example a band roll~~.

19. (Currently Amended) The machine of claim 18 where the rotating speed of said band roll is regulated through a rotating device~~, such as a jack or an engine~~.

20. (Previously presented) The machine of claim 18 where said band providing member includes at least a drive and tensioning roller.

21. (Previously presented) The machine of claim 17 where said moving member comprises a rotating member which rotation axis is movable so as to match the longitudinal axis of said pipe and a forward moving member.

22. (Previously presented) The machine of claim 17 where said rotating member includes a rotating motor linked to a vertically sliding member.

23. (Previously presented) The machine of claim 21 where said rotating member includes a rotating joint linked to a rotating motor.

24. (Previously presented) The machine of claim 17 where said contacting member and said pressing member are part of a single rotating unit, said rotating unit comprising a shaft linked to a rotating member.

25. (Previously presented) The machine of claim 17 further comprising a coating member, comprising for example a coating roller, capable of coating the internal face of said pipe, linked to the moving member, and being angularly shifted from both contacting member and pressing member.

26. (Previously presented) The machine of claim 25 where said coating roller is fed by a plurality of feeding members, comprising for example a plurality of tubes linked to at least a tank.

27. (Previously presented) The machine of claim 26 including at least two separate tanks, where a first tank is suitable to contain unpolymerized resin and a second tank is suitable to contain an hardener agent, and where said unpolymerized resin and hardener agent are mixed close to said coating roller.

28. (Previously presented) The machine of claims 17 where said contacting member and/or said pressing member are attached to a shaft through radially extendable arm(s).

29. (Previously presented) The machine according to claim 28 where said radially extendable arm is radially regulated through actuating a pneumatic jack.

30. (Previously presented) The machine of claim 17 where said contacting member and/or said pressing member comprise a roller and/or a blade and/or a brush.

31. (Previously presented) The machine of claim 30 where contacting member comprises a roller driven by a wheel suitable to contact said internal face of said pipe, said wheel being linked to said roller with a peripheral speed increase member.

32. (Previously presented) The machine of claim 17 including a forward moving member which includes a driving wheel suitable to contact the internal face of said pipe, said driving wheel being moved by a motor through a stabilization member.

33. (Previously presented) The machine of claim 32 where said stabilization member comprises two inclined wheels situated from each side of driving wheel and capable of contacting the internal face of the pipe, said wheels being linked to arms in an adjustable position along said arms.

34. (Previously presented) The machine of claim 17 which further includes a front wheel.

35. (Previously presented) The machine of claim 34 which further includes a gyroscope, for example a pendulum, and a controller unit activated by said gyroscope and orientating the front wheel to keep the horizontal position of the machine.

36. (Previously presented) The method according to claim 3 wherein the band is an unidirectional fabric.

37. (Previously presented) The method according to claim 6 where the resin or the resin including matrix is obtained by mixing at least an unpolymerized resin and a hardening agent just before said coating step.